3A5

H-F TWIN TRIODE

MINIATURE TYPE

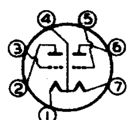
Filament	Coated		
Filament Arrangement	*Series**	*Parallel***	
Voltage	2.8	1.4	d-c volts
Current	0.11	0.22	amp.

Direct Interelectrode Capacitances:°

	Triode Unit T1	Triode Unit T2	
Grid to Plate	3.2	3.2	μμf
Grid to Filament	0.9	0.9	μμf
Plate to Filament	1.0	1.0	μμf
Plate to Plate	0.32		μμf

Maximum Overall Length	2-1/8"
Maximum Seated Height	1-7/8"
Maximum Diameter	3/4"
Bulb	T-5-1/2"
Base▲	Miniature Button 7-Pin

Pin 1 - Filament -
Pin 2 - Plate T_2
Pin 3 - Grid T_2
Pin 4 - {Fil. Mid-Tap (+ parallel)}
Pin 5 - Grid T_1
Pin 6 - Plate T_1
Pin 7 - Fil. (+ Series)



BOTTOM VIEW (7BC)

RCA Socket	Stock No.9914
Mounting Position	Any

For convenience, one triode unit is identified as T_1; the other as T_2.

Maximum Ratings Are Design-Center Values

A-F POWER AMPLIFIER

Plate Voltage	135 max.	volts
Plate Current	5 max.	ma.
Plate Dissipation	0.5 max.	watt

Characteristics - Class A, Amplifier:

Plate Voltage	90	volts
Grid Voltage	-2.5	volts
Amplification Factor	15	
Plate Resistance	8300	ohms
Transconductance	1800	μmhos
Plate Current	3.7	ma.

R-F POWER AMPLIFIER & OSCILLATOR - Class C Telegraphy

Key-down conditions per tube without modulation

D-C Plate Voltage	135 max.	volts
D-C Grid Voltage	-30 max.	volts
D-C Plate Current (per unit)	15 max.	ma.
D-C Grid Current (per unit)	2.5 max.	ma.
Plate Input (per unit) ●	2.0 max.	watts
Plate Dissipation (per unit)	1.0 max.	watt

Typical Operation At 40 Mc With Both Units In Push-Pull:

D-C Plate Voltage	135	volts
D-C Grid Voltage ●	-20	volts
	4000	ohms
	570	ohms
Peak R-F Grid-to-Grid Voltage	90	volts
D-C Plate Current	30	ma.
D-C Grid Current (approx.)	5	ma.
Driving Power (approx.)	0.2	watt
Power Output (approx.)	2	watts

*, **, °, ●, ▲, :see next page

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H-F TWIN TRIODE

(continued from preceding page)

* Filament voltage applied across the two sections in series between pins No. 1 and No. 7. Grid voltage is referred to Pin No. 1. For series filament operation, a shunting resistor must be connected across the section between pins No. 1 and No. 4. to by-pass excess cathode current in this section. The value of the shunting resistor should be adjusted to make the voltage across the shunted section equal to the voltage across the section between pins No. 4 and No. 7. When other tubes in series-filament arrangement contribute to the filament current of the 3A5, an additional shunting resistor may be required between pins No. 1 and No. 7.

** Filament voltage applied across the two sections in parallel between pin No. 4 and pins No. 1 and No. 7 connected together. Grid voltage is referred to pins No. 1 and No. 7 tied together.

o With no external shield

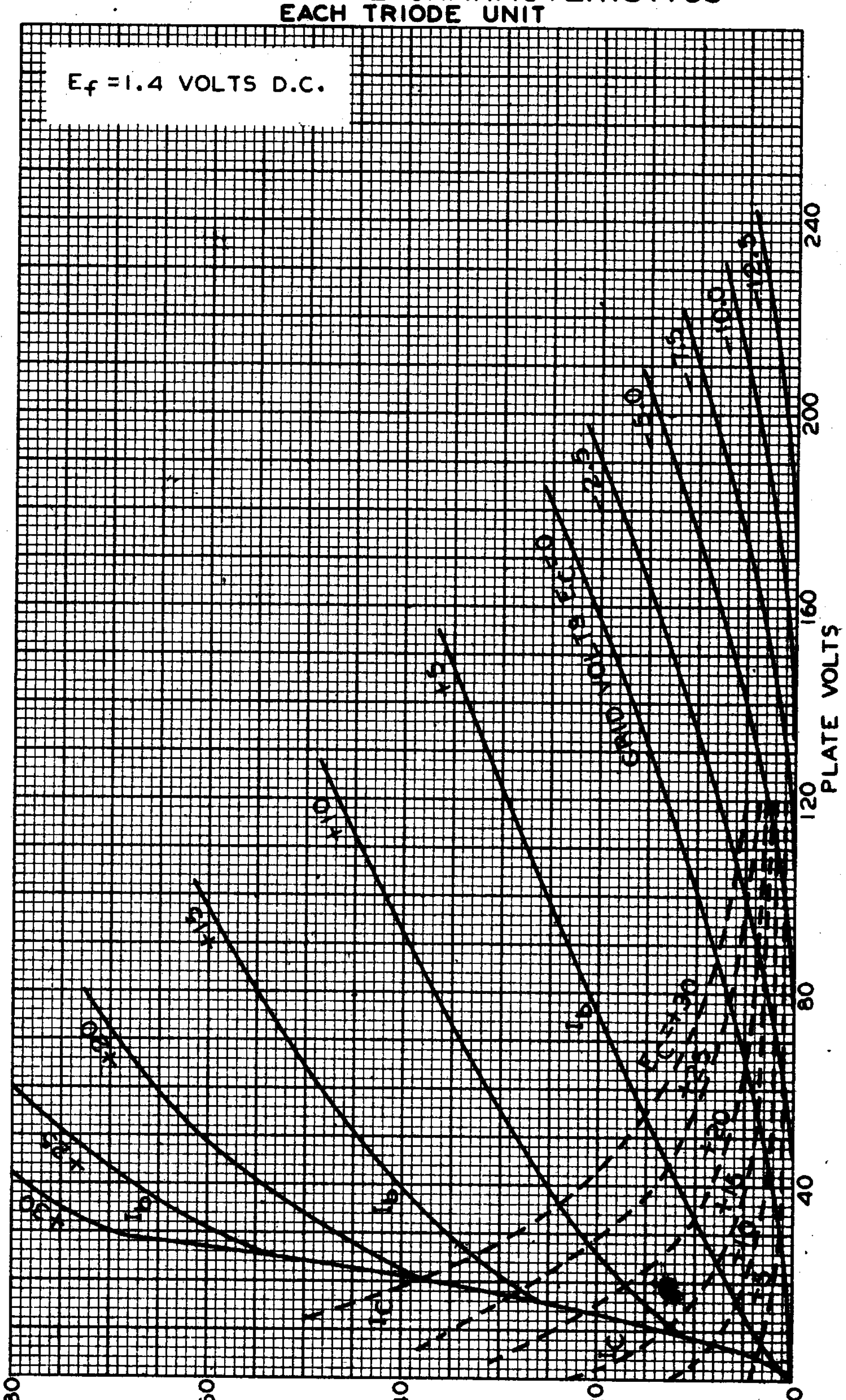
● Obtained by grid resistor (4000), cathode resistor (570), or fixed supply.

▲ *The center hole in sockets designed for this base provides for the possibility that this tube type may be manufactured with the exhaust-tube tip at the base end. For this reason, it is recommended that in equipment employing this tube type, no material be permitted to obstruct the socket hole.*

RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

3A5

3A5
AVERAGE PLATE CHARACTERISTICS
EACH TRIODE UNIT



MARCH 14, 1942

RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

92C-6376